

## Carbon Dioxide Monitor/Controller With The USB Data Logger



### F2000IAQ-CO<sub>2</sub>-31XXU series

The monitor/controller is special design to monitor and alarm CO<sub>2</sub> level, also provides up to one 0~10VDC output and one on/off relay output to control a fan or a CO<sub>2</sub> generator.

An data logger is designed inside, which can record CO<sub>2</sub> measurements more than 115 days and can be saved the data via a USB disk.

The memorial CO<sub>2</sub> monitor/controller not only very easily to be used as a CO<sub>2</sub> monitor and controller, but also as a recorder of the measurements.

Application in schools, kindergartens, office buildings, greenhouses and so on.

### Features

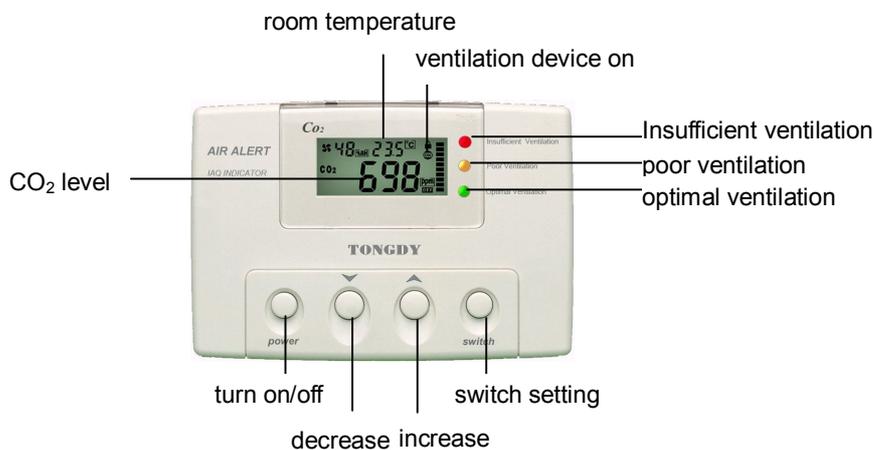
- ◆ Real-time monitoring carbon dioxide (CO<sub>2</sub>) measurements during 0ppm to 20,000ppm range
- ◆ Optional real-time monitoring temperature from -20°C to 60°C and relative humidity from 0 to 100%RH
- ◆ Non-dispersive infrared (NDIR) CO<sub>2</sub> sensor with self calibration, 15 years lifetime
- ◆ The 3-LED indicator lights indicate three CO<sub>2</sub> measured ranges
- ◆ LED lights brightness adjustable
- ◆ Provide 1X0~10VDC output for alternative linear CO<sub>2</sub> measurement and PID control output
- ◆ Provide 1X On/Off dry contact output to control alternative a ventilator and a CO<sub>2</sub> generator
- ◆ An internal data logger is used to record CO<sub>2</sub> measurements as well as optional temperature and RH% measurements.
- ◆ With super large capability memorizer, it can save data of up to 115 days
- ◆ Provide the software to preset the sampling time, read and record CO<sub>2</sub>/temperature&RH levels on PC
- ◆ Post the data from the internal memorizer by any USB disk, and copy the data to a PC

### Specifications

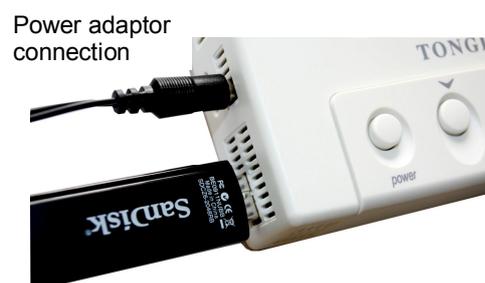
Gas detected	Carbon Dioxide (CO <sub>2</sub> )
Sensing element	Non-Depressive Infrared Detector (NDIR)
CO <sub>2</sub> NDIR life	>10 years
CO <sub>2</sub> range	0~5000ppm 0~20,000ppm optional
Accuracy@25°C(77°F)	±40ppm + 3% of reading (0~2000ppm) ±75ppm or 10% of reading whichever is greater (0~5000ppm/0~20,000ppm)
Stability	<2% of FS over life of sensor (15 yr typical)
Calibration interval	ABC Logic Self Calibration Algorithm
CO <sub>2</sub> setting & Display resolution	1ppm
Pressure Dependence	Can be preset the altitude by the end users to eliminate the pressure influence via a inside software
Temperature& RH sensor (optional)	Combined digital temperature and relative humidity sensor

Temperature measurement range	0°C~60°C(32°F~140°F)
Humidity measurement range	0~100%RH
Temperature& RH accuracy	±0.5°C / ±3%RH
Option: 1X dry contact output	Rated currency for contact point: 2A 220VAC/30VDC, resistance load
Optional: 1xanalog output	0~10VDC or 4~20mA analog output for CO2 measurement
Operation condition	0°C~60°C, 0~95%RH (non-condensing)
Power supply	24VAC/VDC ±10% wiring connection Or with a power adaptor of 24V/230V or 24V/110V
Consumption	3.5W/ Max, 2.5W/ Average
Weight	380g
Dimensions	130mm×90mm×40mm
Connections Interface	Locate in interface of connection
Installment standard	65mm×65mm or 2"×4" wire box
Wiring standard	Wire section area<1.5mm <sup>2</sup>
Approval Standard	CE-Approval
Presetting and operation	Buttons and internal DIP switches
Sampling alternation	Preset the sampling alternation during 60s to 1h. The general maximum day of the data record is 60 days
Software Features	Outputs date is in .txt format <b>USBDataGather</b> software is for stand-alone application. It's used to set parameters for different applications, to display the graph of capture data, to calculate the average value of a period, as well as the max. and min. value

### Buttons/LCD/USB Connection

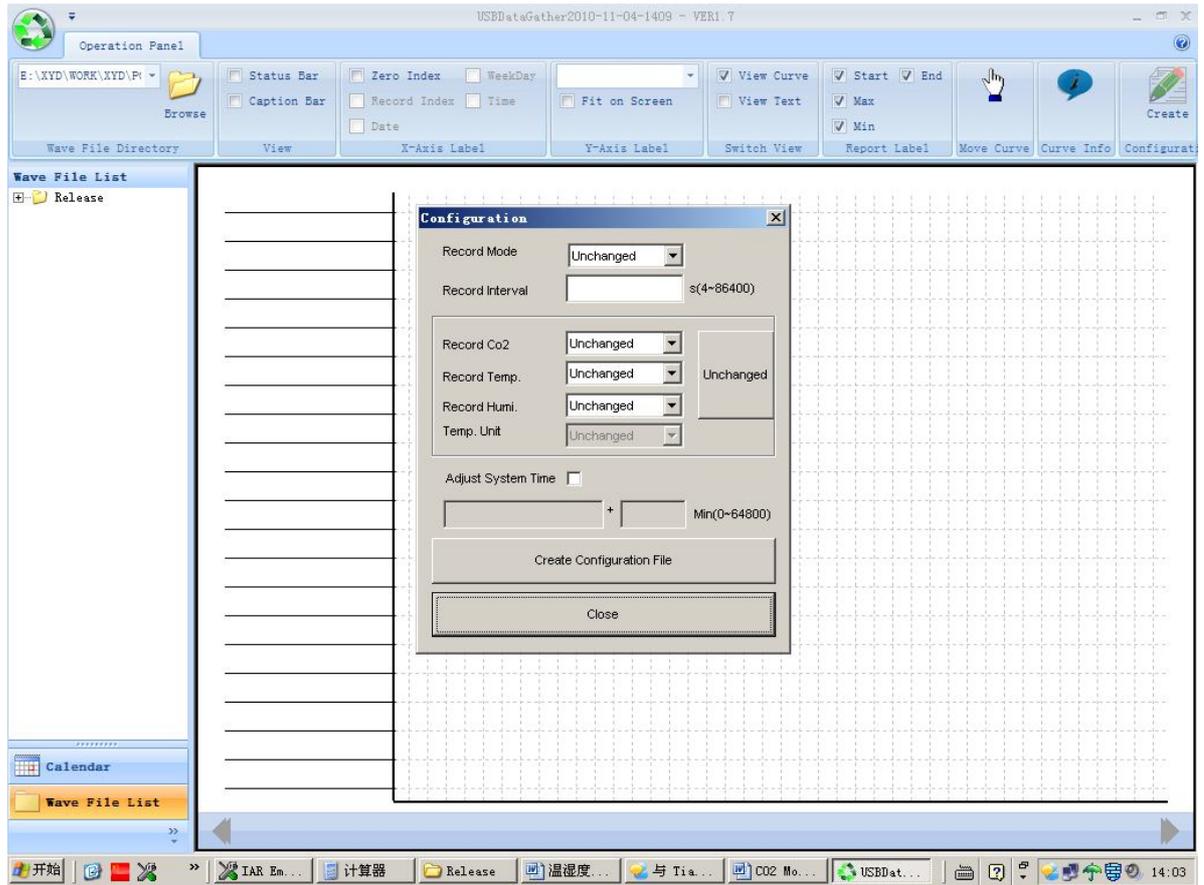


USB connection



Power adaptor connection

## Create Configuration File



## View Record Curve

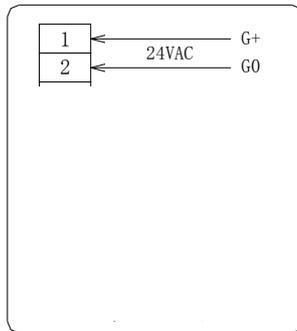




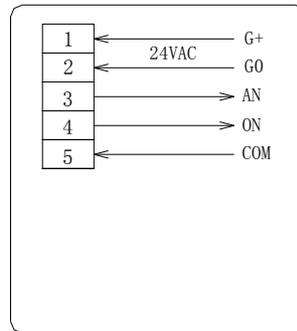
## Model Guide

item	model	description
1	<b>F2000IAQ-CO2-3100U</b>	CO2 Detector&Monitor with LCD display, 3 LED lights indicates CO2 levels range. Data logger records CO2 measurements with a USB disk to move the data to a PC. Power supply: 24VAC/VDC
2	<b>F2000IAQ-CO2-3101U</b>	CO2 Monitor&Controller with LCD display, 3 LED lights indicates CO2 levels range. 1X relay On/Off control output. Data logger records CO2 measurements with a USB disk to move the data to a PC.
3	<b>F2000IAQ-CO2-3110U</b>	CO2 Monitor&Controller with LCD display, 3 LED lights indicates CO2 levels range. 1X analog output. Data logger records CO2 measurements with a USB disk to move the data to a PC.
4	<b>Option -TH</b> ( for above items)	Temperature and RH monitoring and data recordering option for above items.

## Wiring Diagram



3100U



3101U/3110U